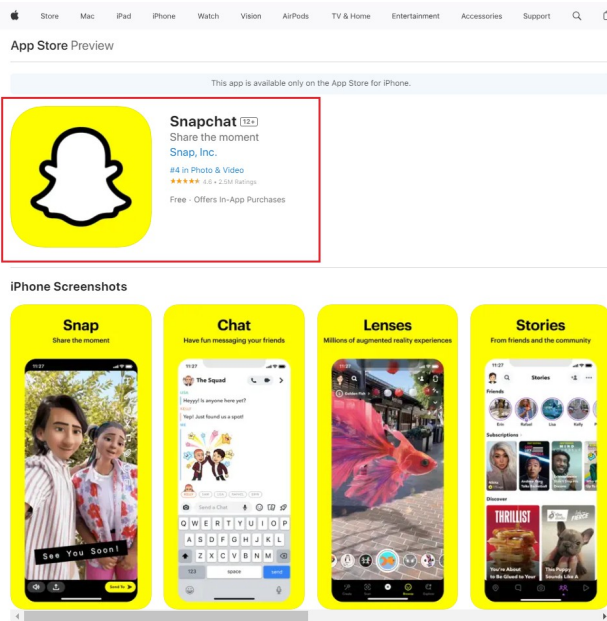


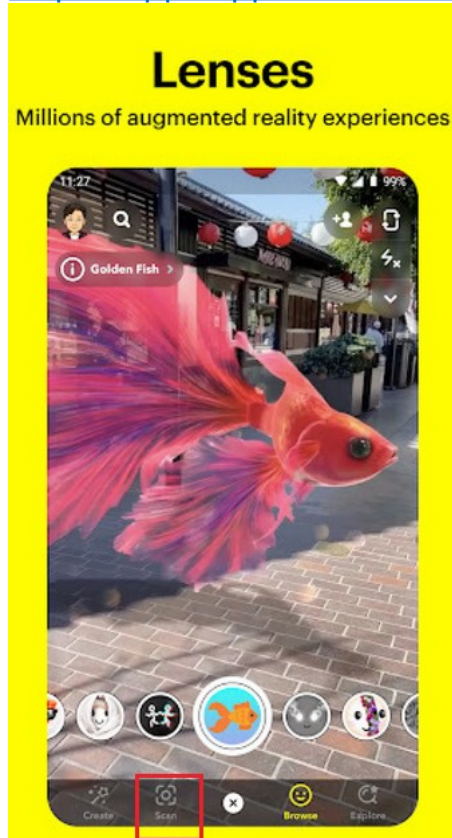
Exhibit 2

Charted Claims:

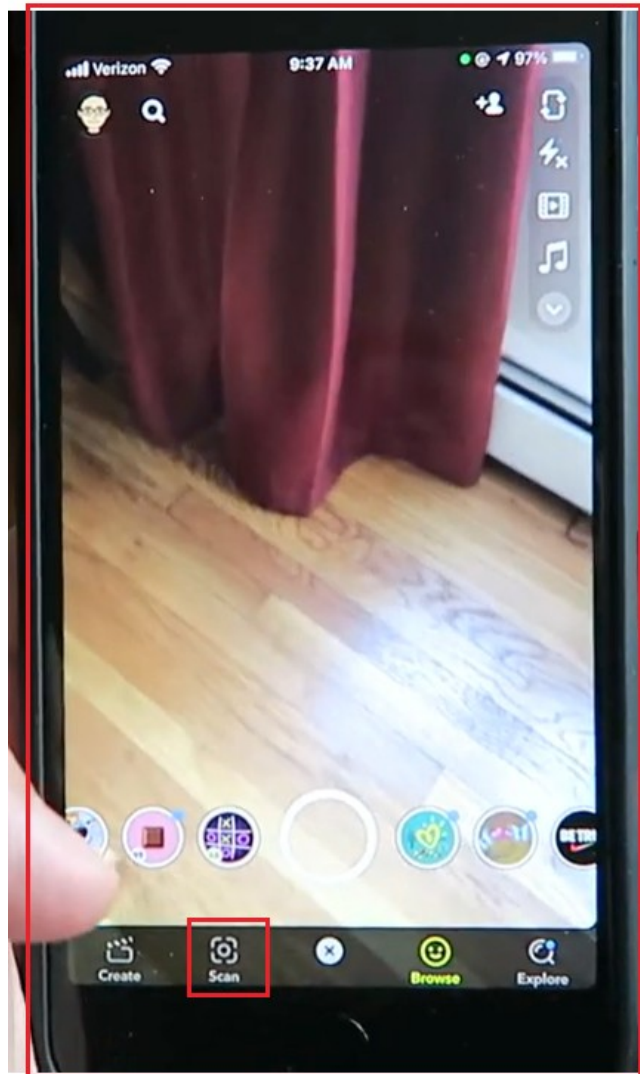
Method Claims:1

US8471812B 2	Snapchat mobile application ("Accused instrumentality")
1. A method for identifying an object, the method comprising:	<p>The accused instrumentality utilizes a method for identifying (e.g., detecting and searching similar products) an object (e.g., apparel, home goods etc.).</p> <p>As shown below, the accused instrumentality is a mobile application and can be installed on a user's smartphone. After installation, a user log's in to the accused application and clicks on Scan button in the application to enable "Scan" (visual search) function. The Scan function is then used to detect, and identify objects such as apparel, home goods, plants, animals etc. in an image. The image is captured via the smartphone's camera.</p> 

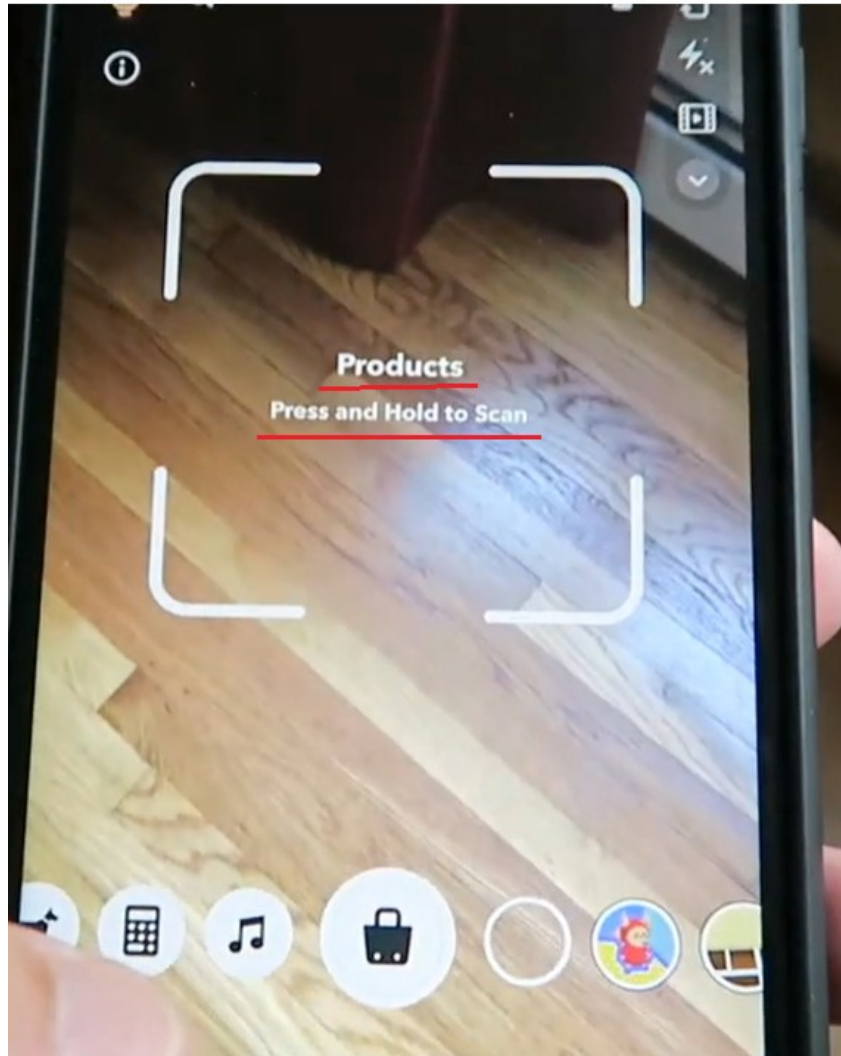
<https://apps.apple.com/us/app/snapchat/id447188370>



https://play.google.com/store/apps/details?id=com.snapchat.android&hl=en_US



<https://www.youtube.com/watch?v=BPXfjoba-xQ>



<https://www.youtube.com/watch?v=BPXfjoba-xQ>

Scan

Scan Guide

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The scanned result can be pulled with a custom script from the Scan Module, let's see how we can script interactions with scan!

ⓘ IMPORTANT

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<https://docs.snap.com/lens-studio/references/templates/interactive/scan>

Guide

The template has several different independent examples on how you can use scan:

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- **Basic Scan:** Basic way to list scanned results on screen on update or by pressing buttons
- **Identify Object:** Identify whether certain object is in scene
- **Environment Switch:** Activate visuals on environment changes
- **Get Car Price:** Shows scanned car and its price range on screen
- **Checklist:** Check if objects in scene fits into the element populated in a checklist. In addition, it contains an example script that you can use to get started with your own Scan experience.
- **The Print On Tap Example:** Simple example to show how to script with scan
- **Scan Rate Limit:** Dealing with multiple Scan requests

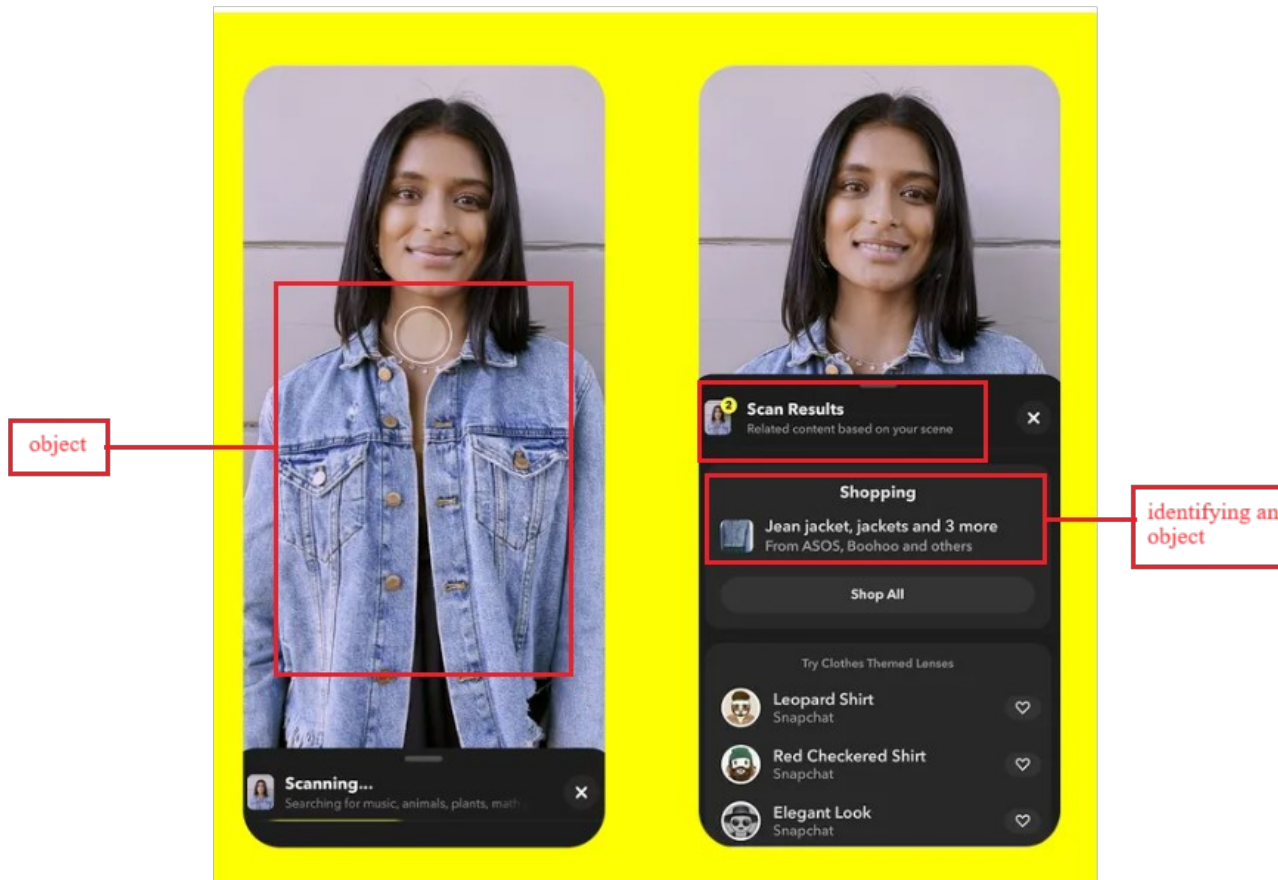
<https://docs.snap.com/lens-studio/references/templates/interactive/scan>



TIP

A scan result can return one or more objects, with one or more detail per object (depending on the scan type)

<https://docs.snap.com/lens-studio/references/templates/interactive/scan>

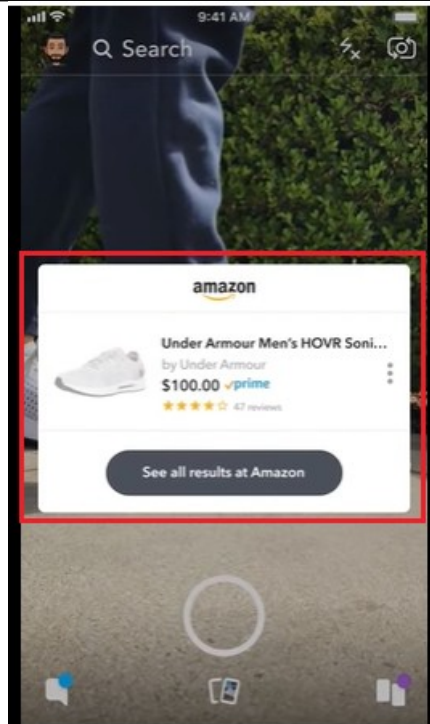


<https://www.cnet.com/tech/services-and-software/snapchat-brings-visual-search-to-the-forefront-with-scan/>

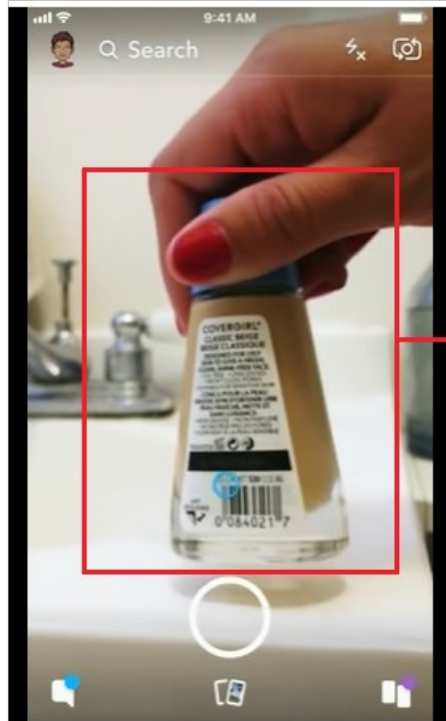


identifying an
object

<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>

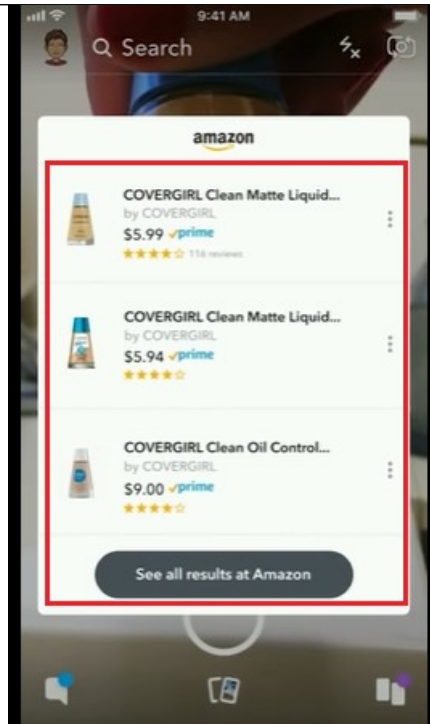


<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



identifying an
object

<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>

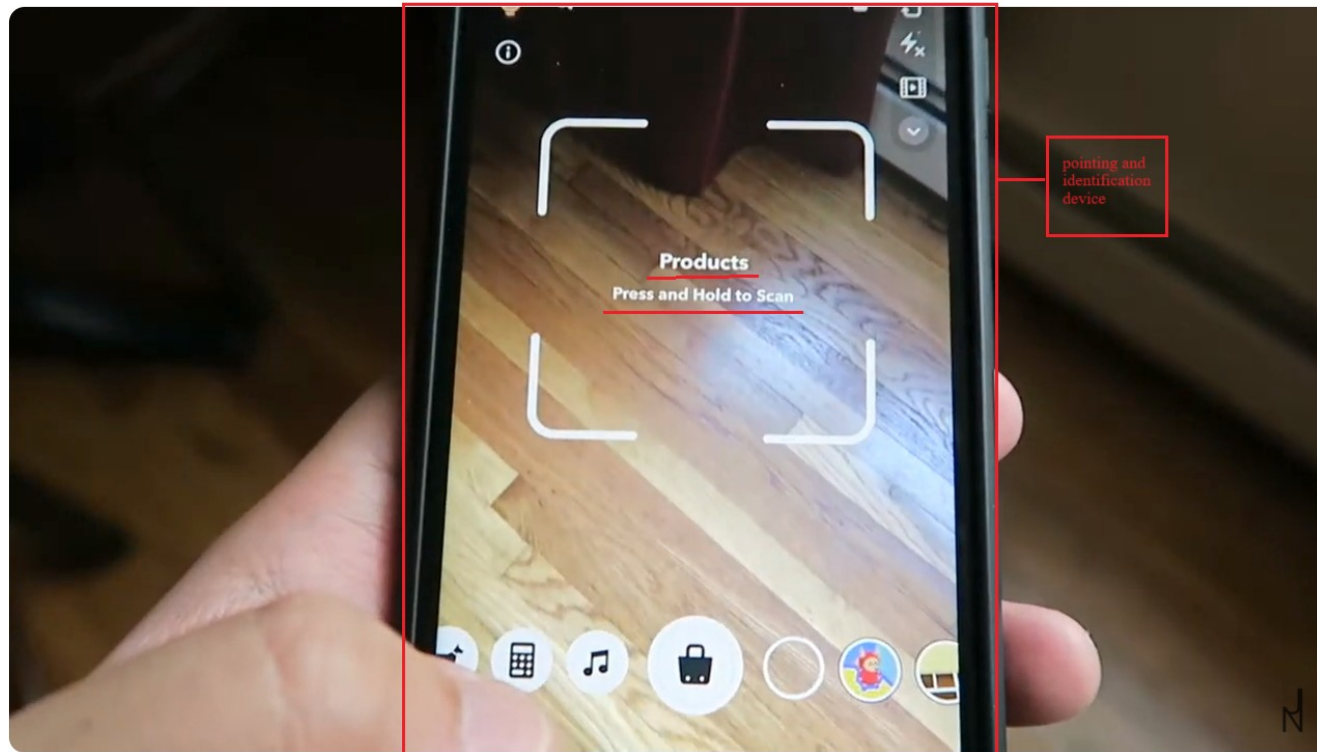


<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>

(a) providing a pointing and identification device for pointing at the object,

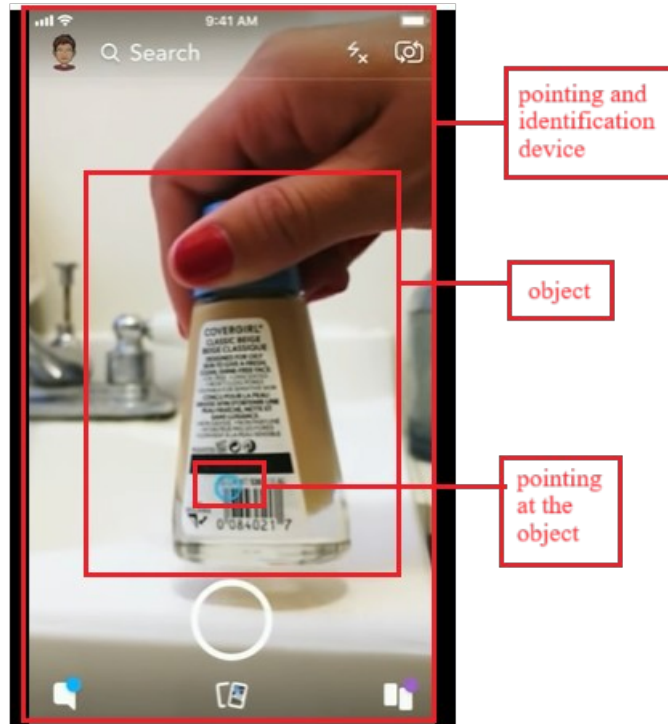
The accused instrumentality utilizes a pointing and identification device (e.g., smartphone with accused instrumentality enabled on it) for pointing at the object (e.g., apparel, home goods etc.).

As shown below, the accused instrumentality is enabled on a user's smartphone. The smartphone is then used to point-to and scan objects for identification by the accused instrumentality. After enabling the accused instrumentality on a smartphone, a user log's in to the accused instrumentality, and clicks on Scan button in the accused application. The user scans a new object image. This image is used by the accused instrumentality to search across Snapchat's Lens or other databases (e.g., Amazon's product catalog) to identify and present similar products to the user.

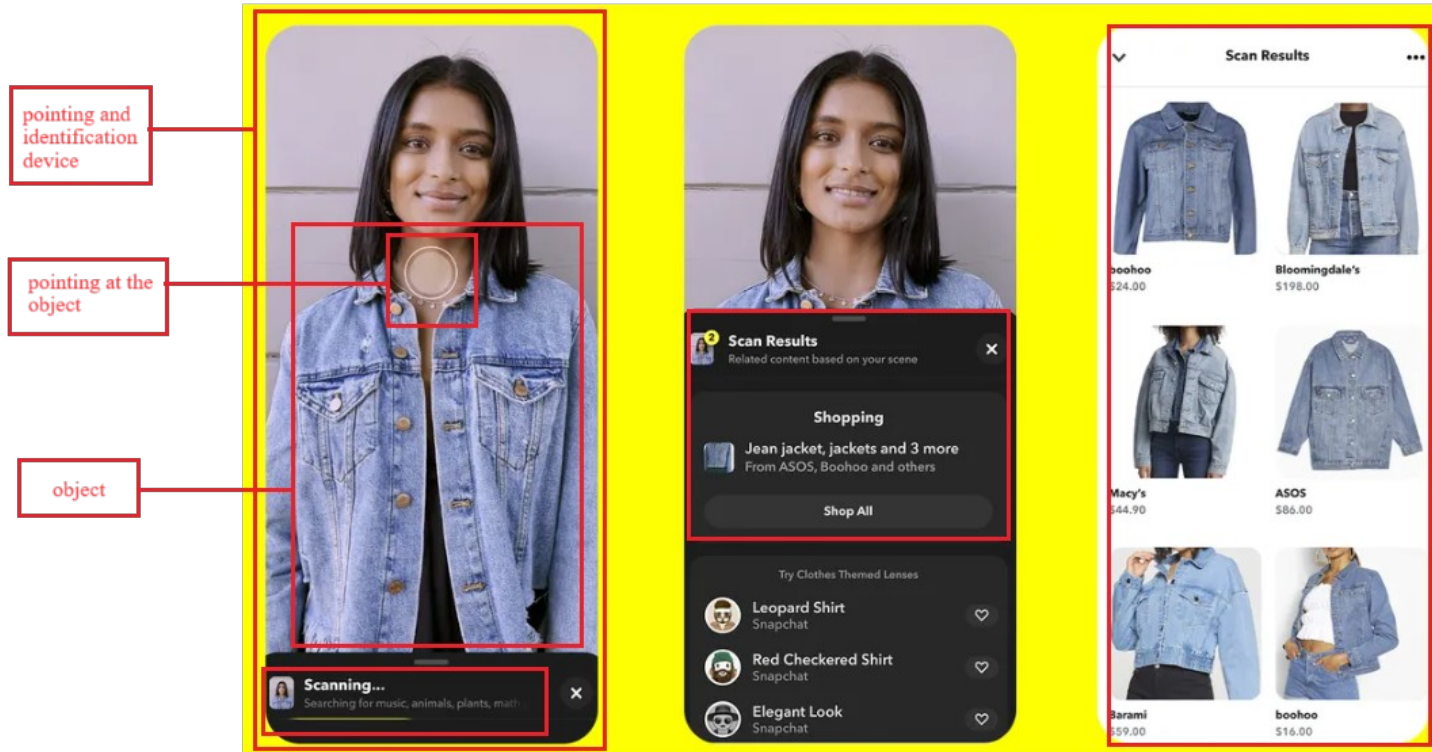


Snapchat: Scan - How to Scan items, pets and more! | 2021

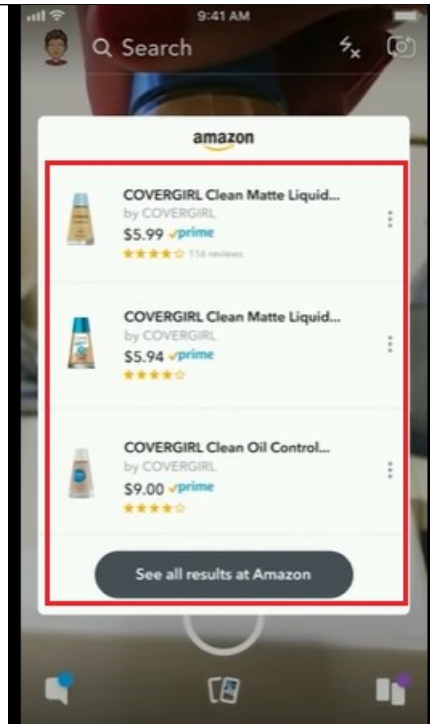
<https://www.youtube.com/watch?v=BPXfjoba-xQ>



<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



<https://www.cnet.com/tech/services-and-software/snapchat-brings-visual-search-to-the-forefront-with-scan/>



<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>

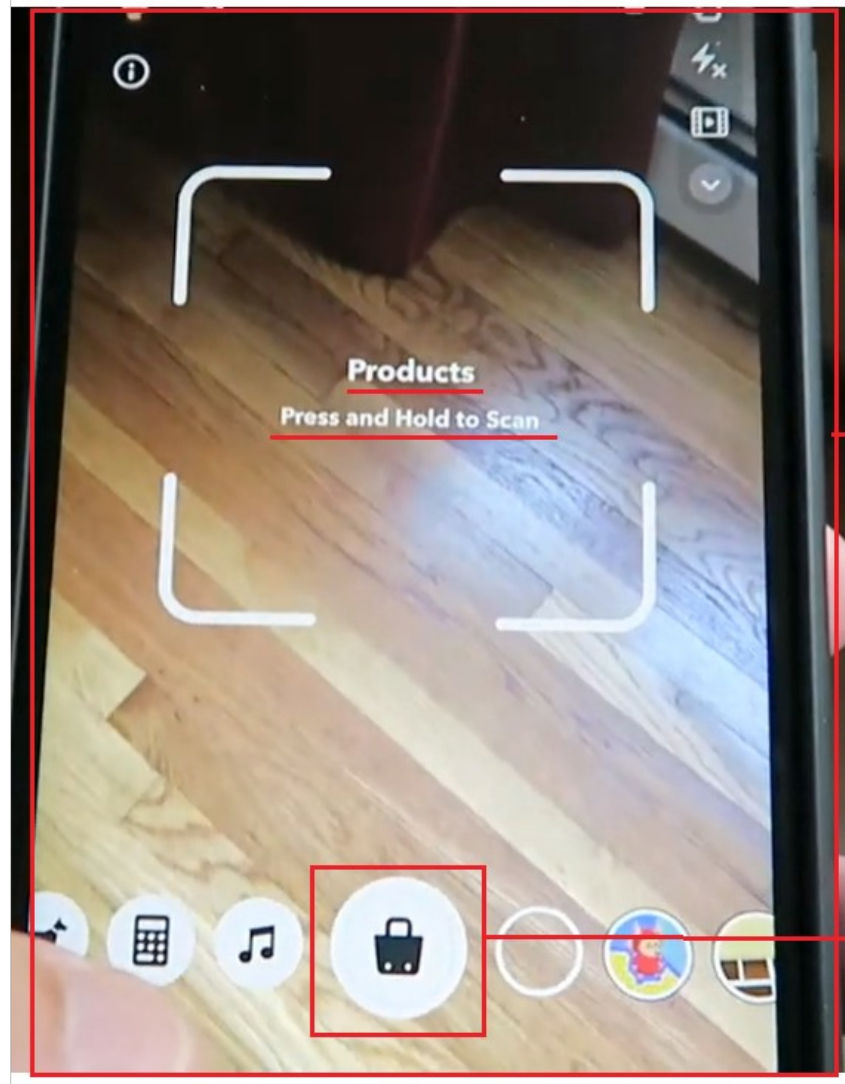
the pointing and identification device comprising: at least one actuation means for actuation by the user

The accused instrumentality utilizes the pointing and identification device (e.g., smartphone with accused instrumentality enabled on it) comprising: at least one actuation means (e.g., capture button to scan and search for an object) for actuation by the user (e.g., click by the user) when the user points the pointing and identification device (e.g., smartphone with accused instrumentality enabled on it) at the object (e.g., apparel, home goods etc.).

As shown below, when a user points a smartphone (with accused application installed on it), at an object (such as an apparel, home good etc.), and clicks on a capture button, an image of the pointed-at object is clicked. The object is then identified by the accused application (e.g., using Snap function) and searched across Snapchat's Lens or other databases (e.g., Amazon's product

when the user points the pointing and identification device at the object;

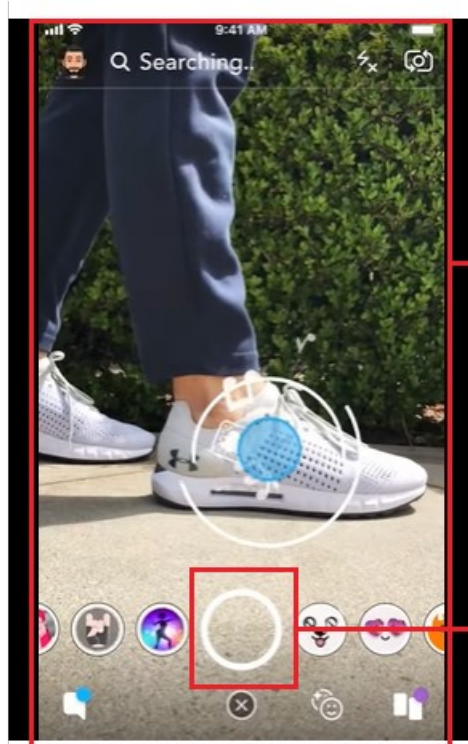
catalog). Similar products are then identified and presented to the user.



pointing and
identification
device

actuation means

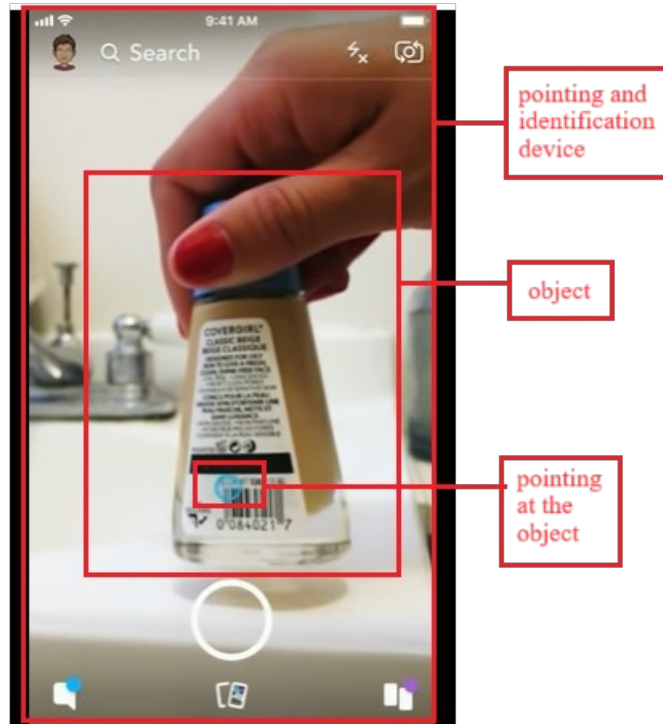
<https://www.youtube.com/watch?v=BPXfjoba-xQ>



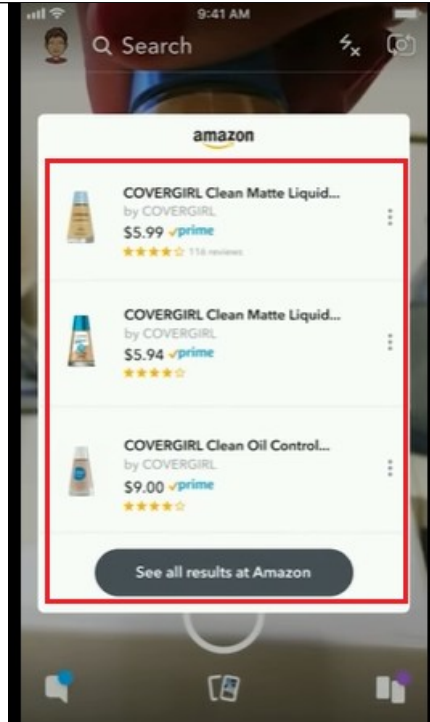
pointing and
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actuation means

<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>

a digital camera for forming a digital image of the object or of a portion of the object when the user points

The accused instrumentality utilizes a digital camera (e.g., camera of the smartphone with accused instrumentality enabled on it) for forming a digital image (e.g., image captured by the camera) of the object (e.g., apparel, home goods etc.) or of a portion of the object when the user points the pointing and identification device (e.g., smartphone with accused instrumentality enabled on it) at the object (e.g., apparel, home goods etc.) and actuates the at least one actuation means (e.g., capture button to scan and search for an object).

As shown below, when a user points a smartphone (with accused application installed on it), at an object (such as an apparel, home good etc.), and clicks on a capture button, an image of the pointed-at object is clicked. The object is then identified by the accused application (e.g., using

the pointing and identification device at the object and actuates the at least one actuation means;

Snap function) and searched across Snapchat's Lens or other databases (e.g., Amazon's product catalog). Similar products are then identified and presented to the user.

Guide

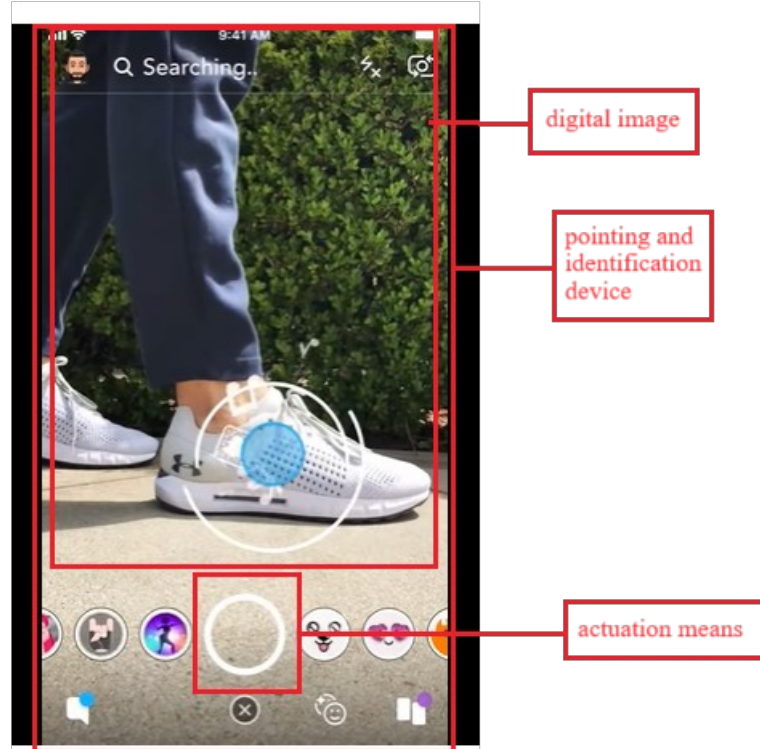
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<https://docs.snap.com/lens-studio/references/templates/interactive/scan>

- **Camera, Photos, and Audio.** Many of our services require us to collect images and other information from your device's camera, photos, and microphone. For example, you won't be able to send Snaps or upload photos from your camera roll unless we can access your camera or photos.

<https://values.snap.com/privacy/prior-privacy-policy-08-15-2023>



<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



digital image

https://www.youtube.com/watch?v=lrR7nc_rHJE



pointing and
identification
device

digital image

actuation means

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Scan

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<https://docs.snap.com/lens-studio/references/templates/interactive/scan>

💡 TIP

A scan result can return one or more objects, with one or more detail per object (depending on the scan type)

<https://docs.snap.com/lens-studio/references/templates/interactive/scan>

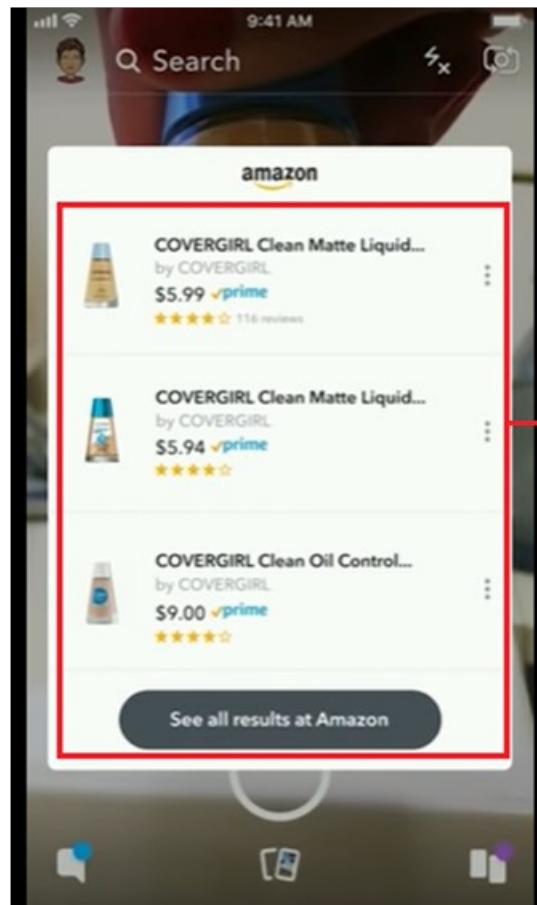
	<p>Identify Object</p> <p>The <code>Identify Object</code> example uses the <code>IdentifyObject</code> script to check if any of the currently scanned objects matches the name typed in the <code>ObjectName</code> slot in the script. Instead of printing the result of the Scan, here we are checking if the result is what we want. If it is what we want, we trigger some effect.</p> <p>By Default <code>ObjectName</code> is set as <code>Banana</code> and the Behavior script will enable a particle system when Banana is scanned.</p> <p>https://docs.snap.com/lens-studio/references/templates/interactive/scan</p>
<p>and a communicati on device for communicati ng the digital image to a different location when the user actuates the at least one actuation means;</p>	<p>The accused instrumentality utilizes a communication device (e.g., wireless communication module and associated processor of the smartphone) for communicating the digital image (e.g., image captured by the camera) to a different location (e.g., Amazon's product catalog, Snapchat's Lens database etc.) when the user actuates the at least one actuation means (e.g., search button to capture and search for an object).</p> <p>As shown below, when a user points a smartphone (with accused application installed on it), at an object (such as an apparel, home good etc.), and clicks on a capture button, an image of the pointed-at object is clicked. The object is then identified by the accused application (e.g., using Snap function) and searched across Snapchat's Lens database or other databases (e.g., Amazon's product catalog). Similar products are then identified and presented to the user.</p>

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<https://docs.snap.com/lens-studio/references/templates/interactive/scan>



communicating
the digital image
to a different
location

<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



pointing and
identification
device

digital image

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Scan

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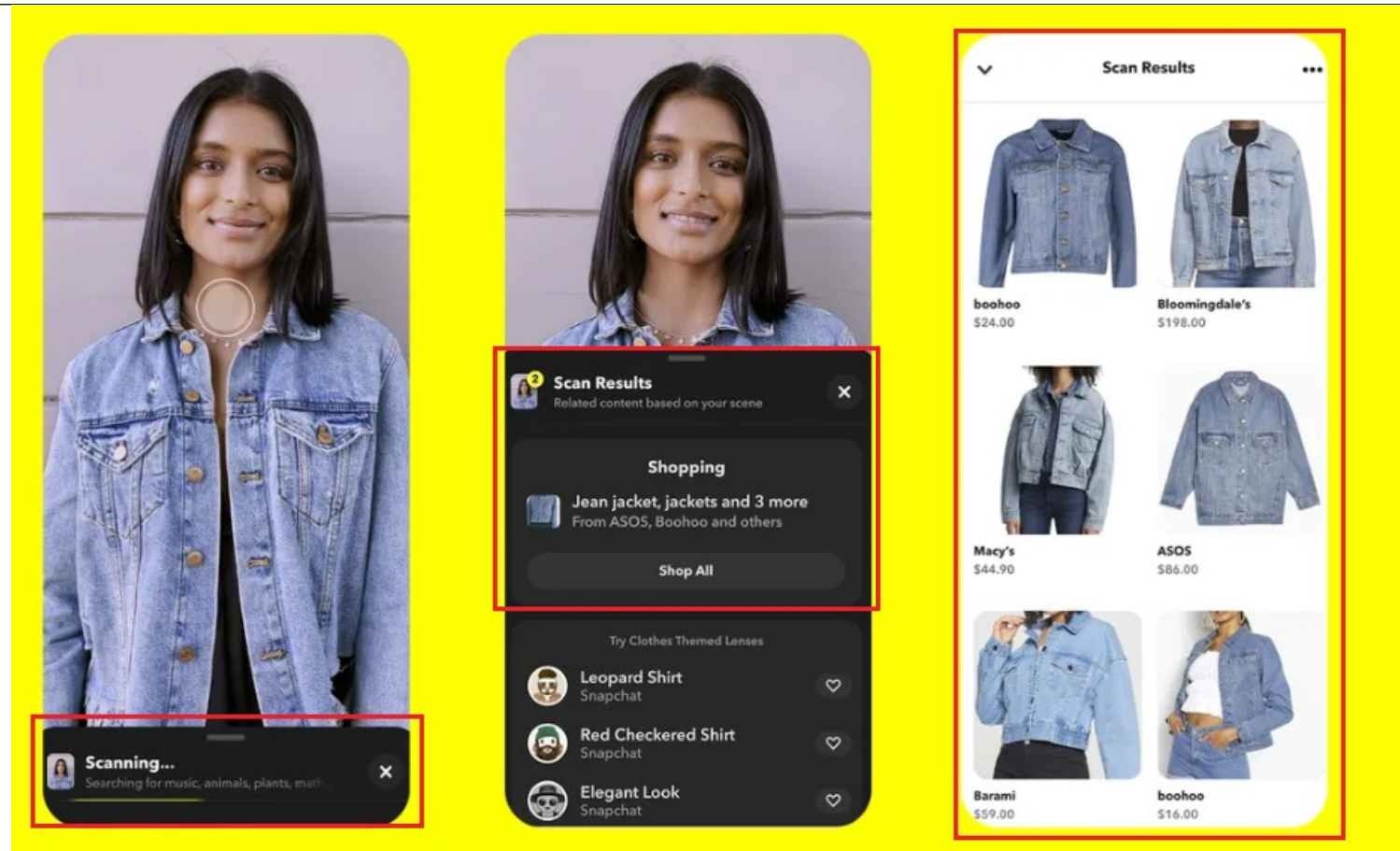
The scanned result can be pulled with a custom script from the Scan Module, let's see how we can script interactions with scan!

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<https://docs.snap.com/lens-studio/references/templates/interactive/scan>



<https://www.cnet.com/tech/services-and-software/snapchat-brings-visual-search-to-the-forefront-with-scan/>

(b)
communicati
ng the
digital

The accused instrumentality practices communicating the digital image (e.g., image captured by the camera) to the different location (e.g., Amazon's product catalog, Snapchat's Lens database etc.).

image to the different location;

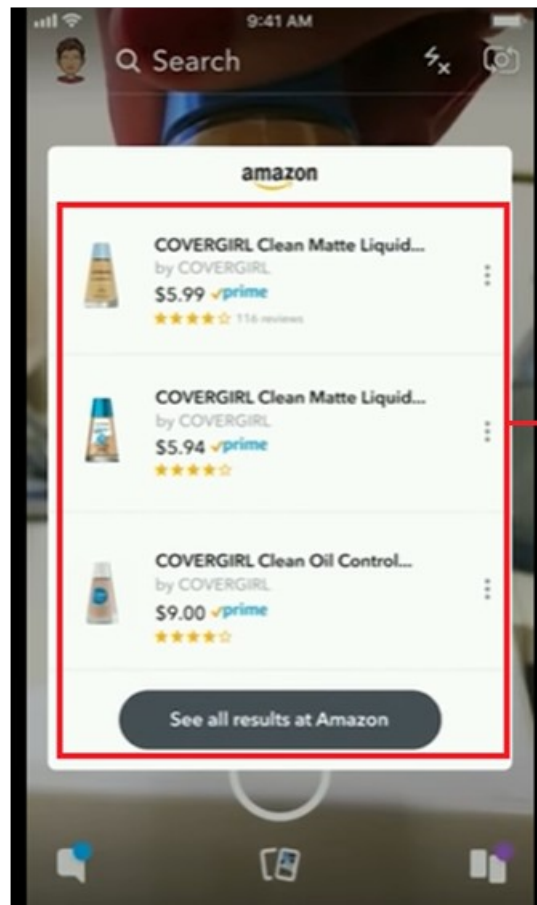
As shown below, when a user points a smartphone (with accused application installed on it), at an object (such as an apparel, home good etc.), and clicks on a capture button, an image of the pointed-at object is clicked. The object is then identified by the accused application (e.g., using Snap function) and searched across Snapchat's Lens database or other databases (e.g., Amazon's product catalog). Similar products are then identified and presented to the user.

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<https://docs.snap.com/lens-studio/references/templates/interactive/scan>



communicating
the digital image
to a different
location

<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



pointing and
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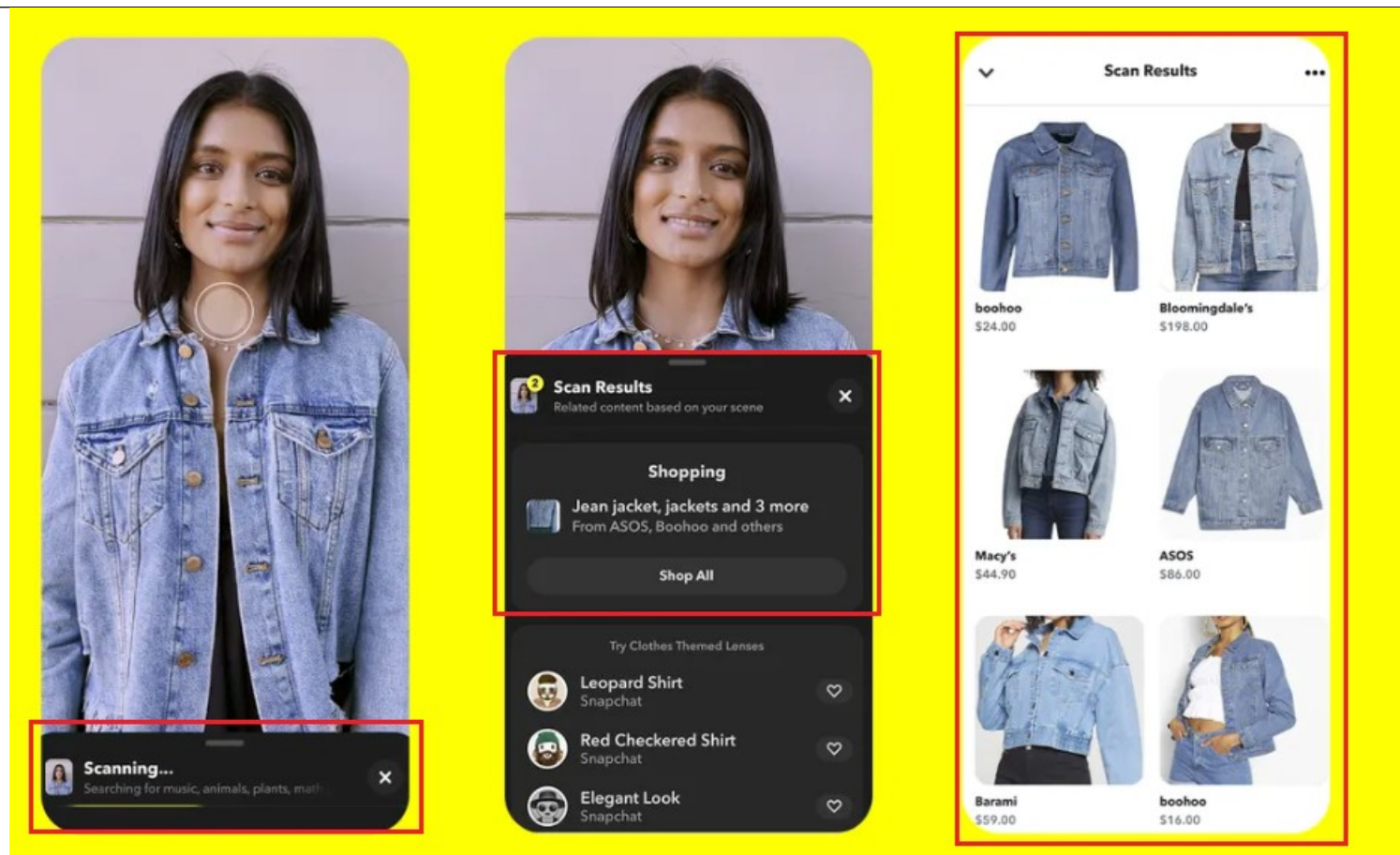
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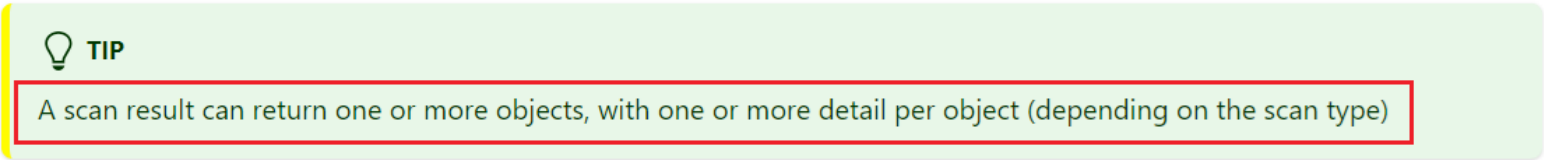

<https://docs.snap.com/lens-studio/references/templates/interactive/scan>

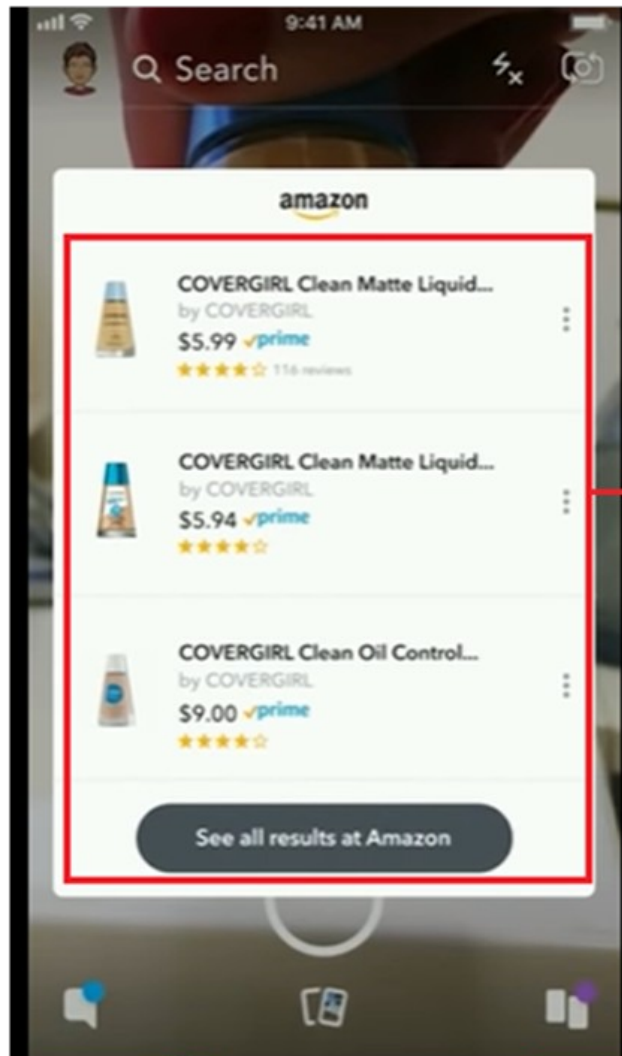


<https://www.cnet.com/tech/services-and-software/snapchat-brings-visual-search-to-the-forefront-with-scan/>

(c)
automaticall
y identifying
a list of

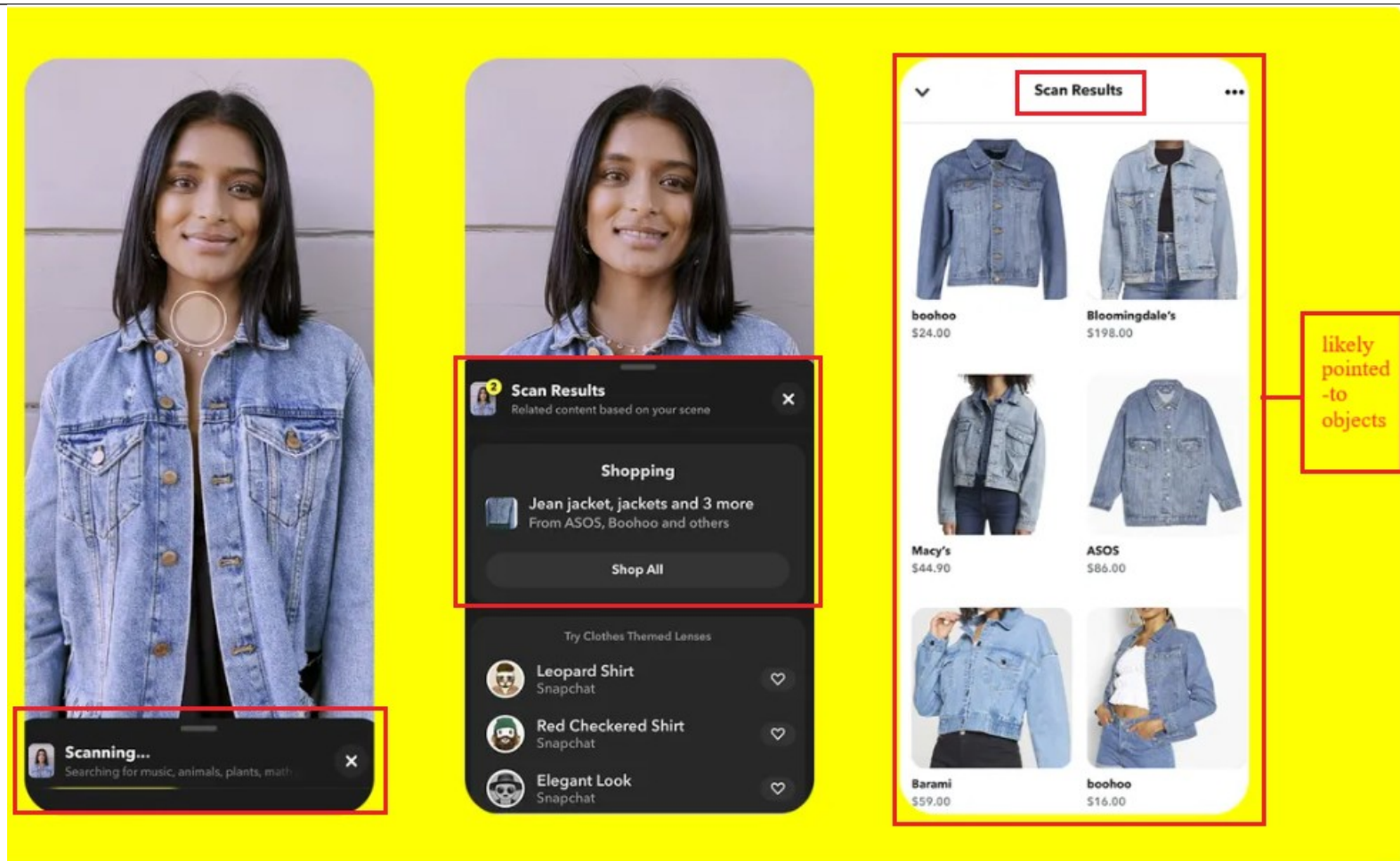
The accused instrumentality practices automatically identifying a list of likely pointed-to objects (e.g., objects similar to the objects identified in an image) from the digital image (e.g., image captured by the camera) at the different location (e.g., Amazon's product catalog, Snapchat's Lens database etc.) to return the list of likely pointed-to objects (e.g., objects similar to the objects

<p>likely pointed-to objects from the digital image at the different location to return the list of likely pointed-to objects; and</p>	<p>identified in an image).</p> <p>As shown below, when a user points a smartphone (with accused application installed on it), at an object (such as an apparel, home good etc.), and clicks on a capture button, an image of the pointed-at object is clicked. The object is then identified by the accused application (e.g., using Snap function) and searched across Snapchat's Lens database or other databases (e.g., Amazon's product catalog). A list of similar products is then identified and presented to the user.</p> <div data-bbox="456 507 1995 667">A screenshot of a Snapchat Lens interface. It features a light green background with a yellow vertical bar on the left. A 'TIP' box is highlighted with a red border, containing the text: 'A scan result can return one or more objects, with one or more detail per object (depending on the scan type)'. Below the tip box is a blue hyperlink.<p> TIP</p><p>A scan result can return one or more objects, with one or more detail per object (depending on the scan type)</p><p>https://docs.snap.com/lens-studio/references/templates/interactive/scan</p></div>
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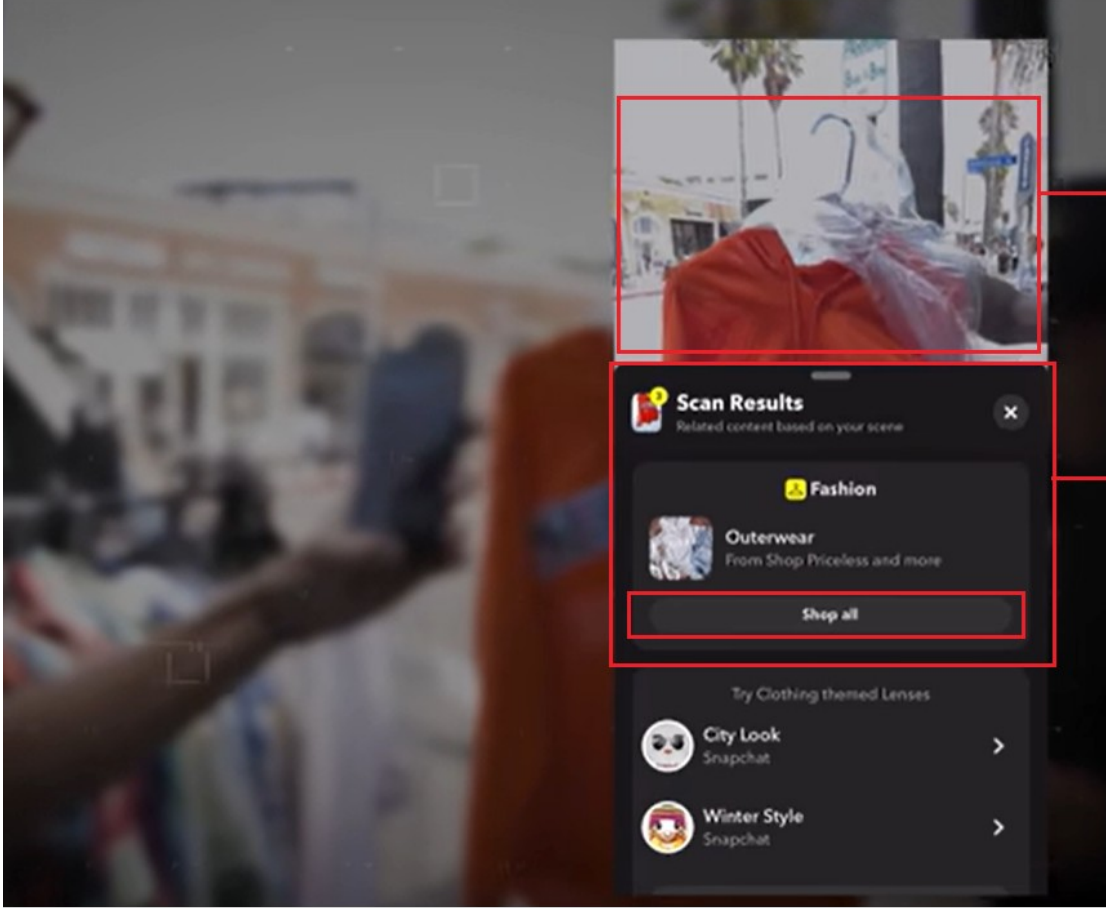


likely pointed-to
objects

<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



<https://www.cnet.com/tech/services-and-software/snapchat-brings-visual-search-to-the-forefront-with-scan/>

	 <p>https://www.youtube.com/watch?v=lrR7nc_rHJE</p>
(d) returning the list of likely pointed-to objects to	<p>The accused instrumentality practices returning the list of likely pointed-to objects (e.g., objects similar to the objects identified in an image) to the user to select (e.g., click to view and buy) one of the likely pointed-to objects (e.g., objects similar to the objects identified in an image).</p> <p>As shown below, when a user points a smartphone (with accused application installed on it), at an</p>

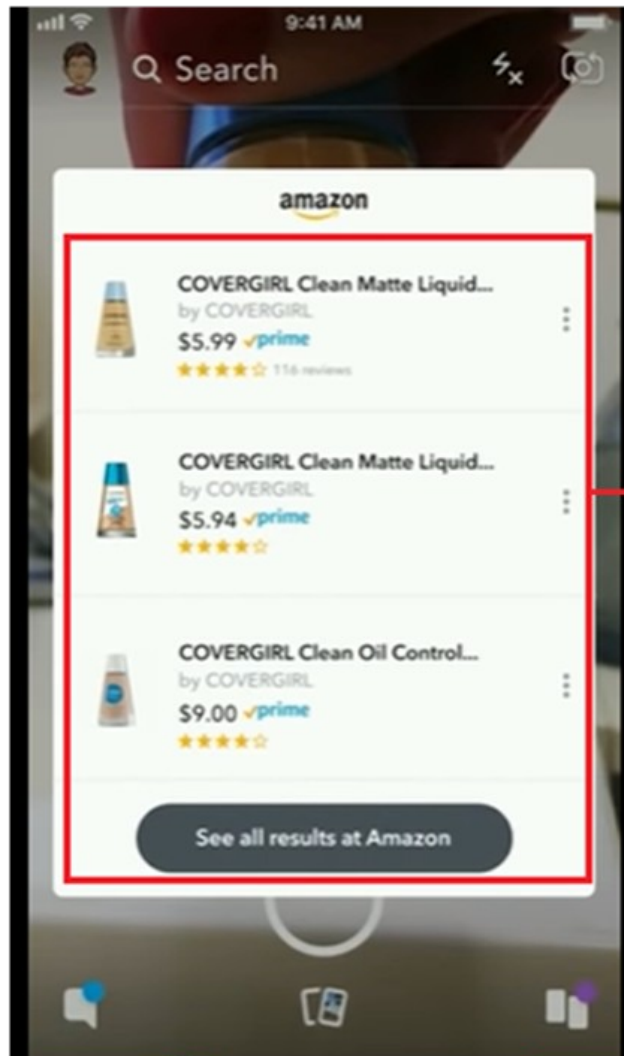
the user to select one of the likely pointed-to objects;

object (such as an apparel, home good etc.), and clicks on a capture button, an image of the pointed-at object is clicked. The object is then identified by the accused application (e.g., using Snap function) and searched across Snapchat's Lens database or other databases (e.g., Amazon's product catalog). A list of similar products is then identified and presented to the user. The user can select one of the products to view and buy.



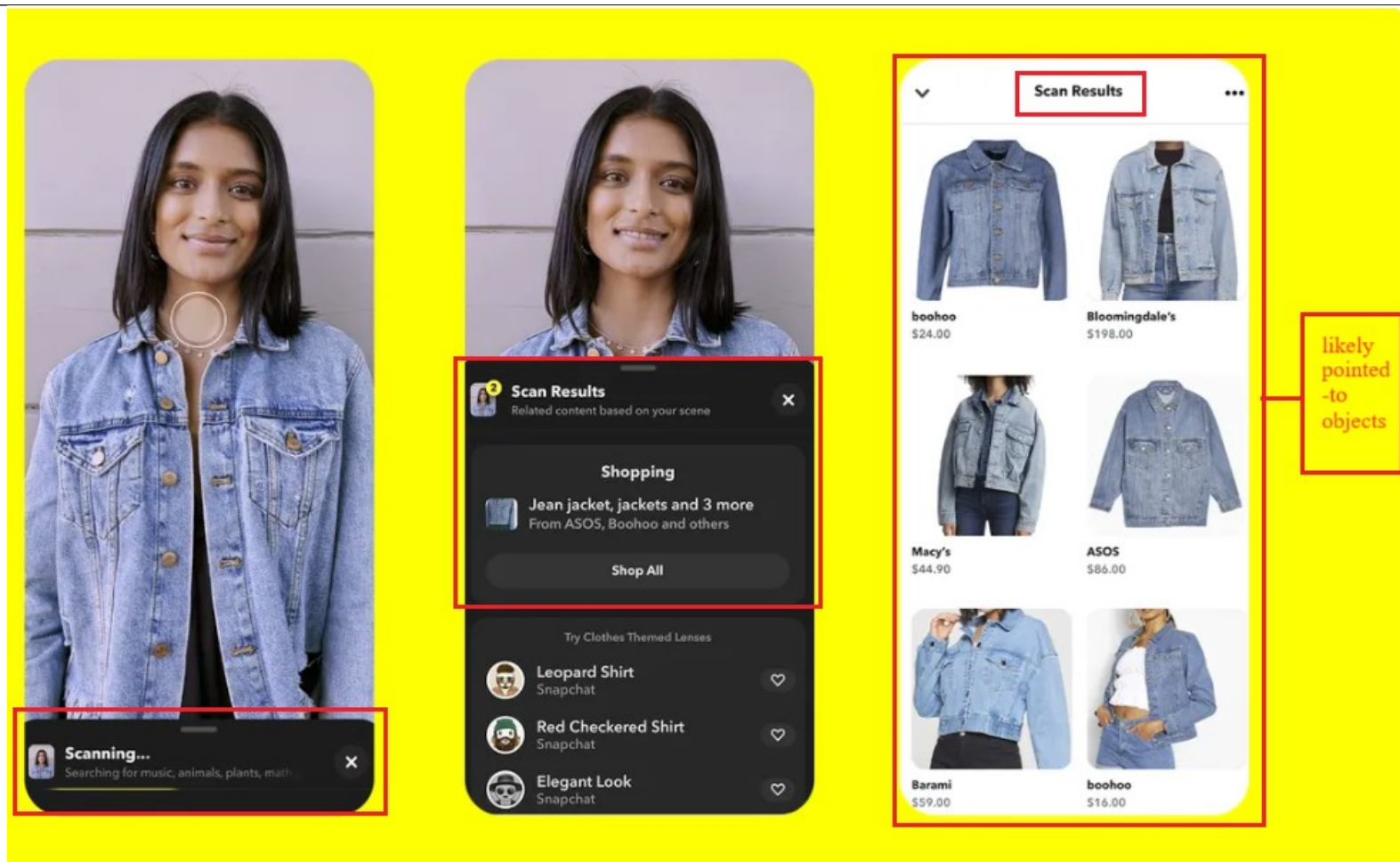
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<https://docs.snap.com/lens-studio/references/templates/interactive/scan>



likely pointed-to
objects

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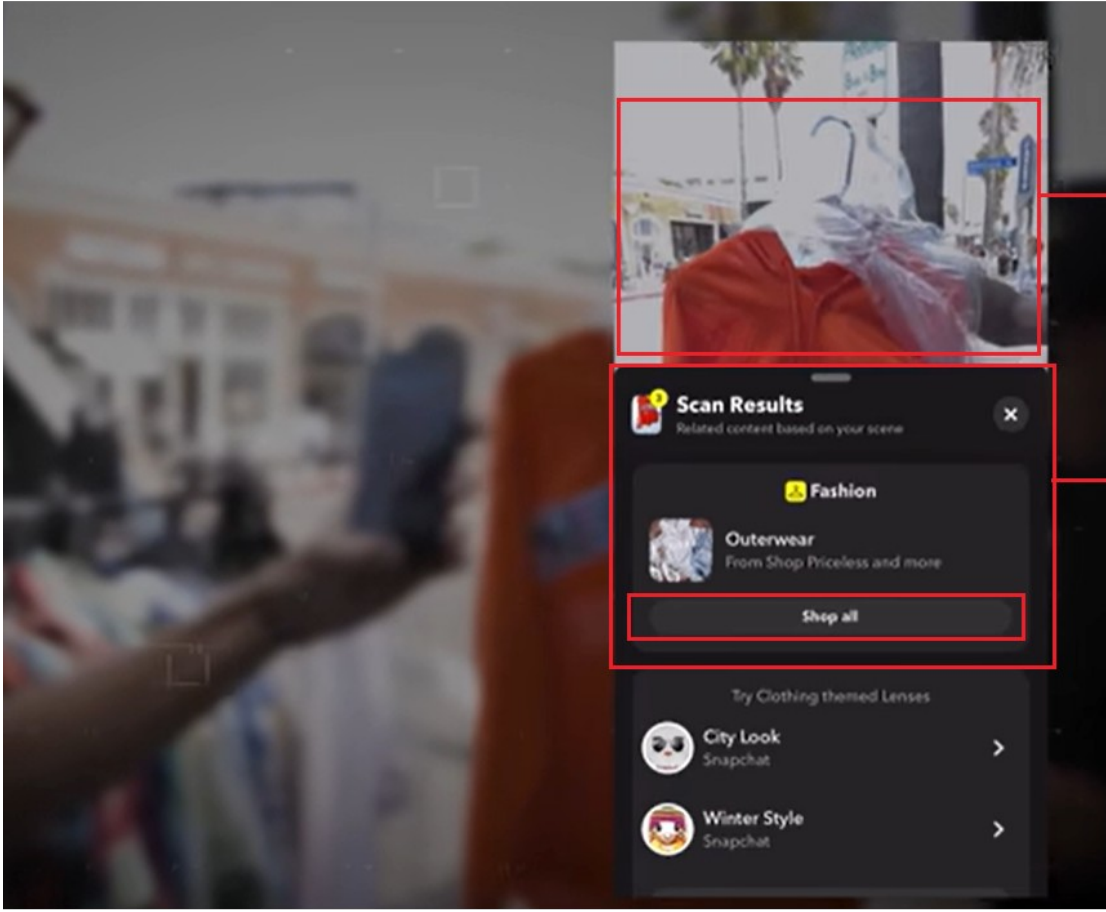
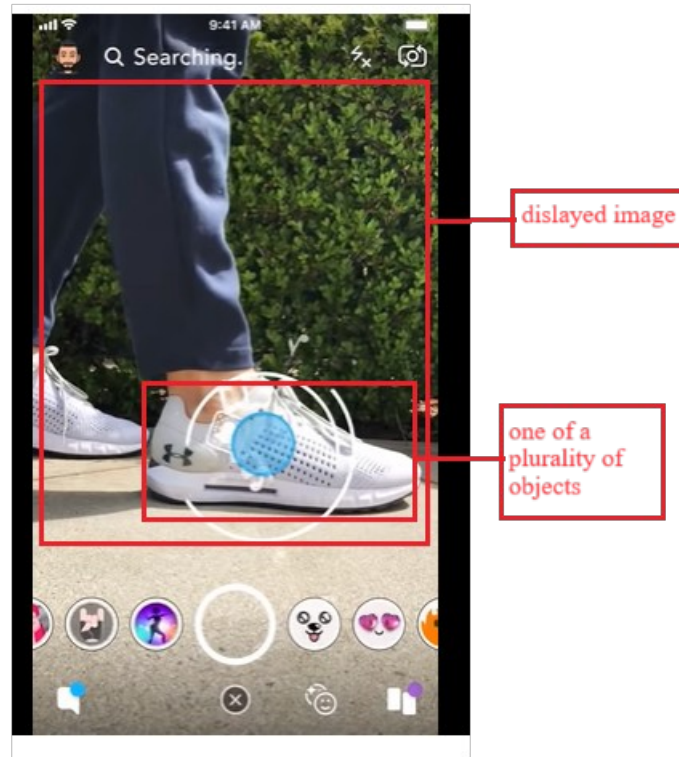
	 <p>https://www.youtube.com/watch?v=lrR7nc_rHJE</p>
<p>wherein the object is at least one of a spot on a displayed</p>	<p>The accused instrumentality practices - wherein the object (e.g., apparel, home goods etc.) is at least one of a spot on a displayed image on a display, a subarea of a space on the displayed image on the display, one of a plurality of objects (e.g., one of the multiple objects in an image) in the displayed image (e.g., image captured using smartphone camera) on the display (e.g., smartphone display), an object in space, or near an object in space, a subarea of a surface in</p>

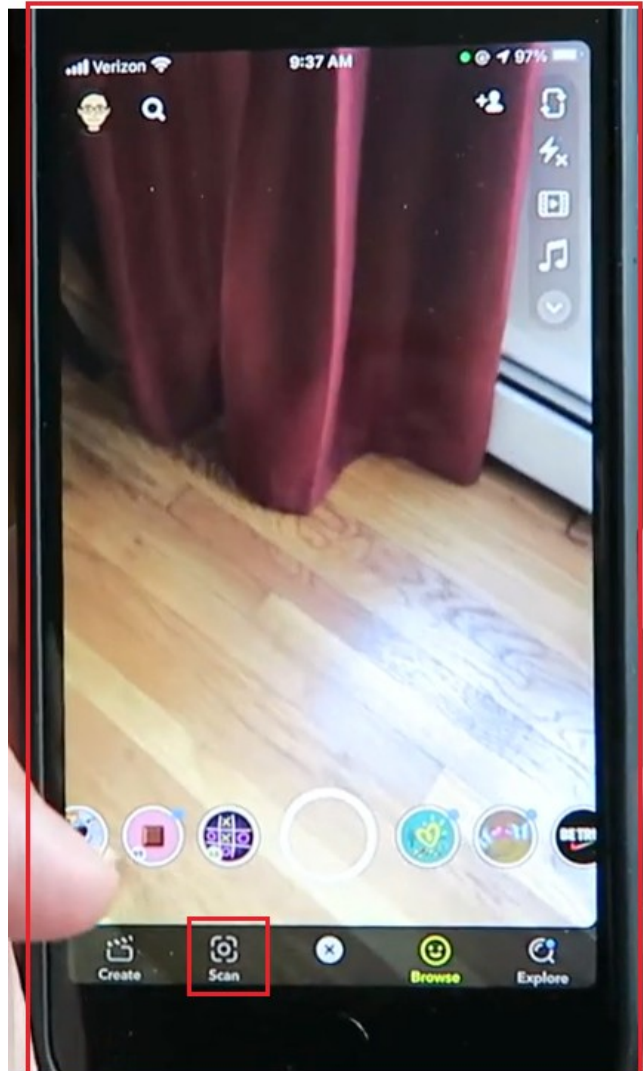
image on a display, a subarea of a space on the displayed image on the display, one of a plurality of objects in the displayed image on the display, an object in space, or near an object in space, a subarea of a surface in space, or one of a plurality of objects in space

space, or one of a plurality of objects in space.

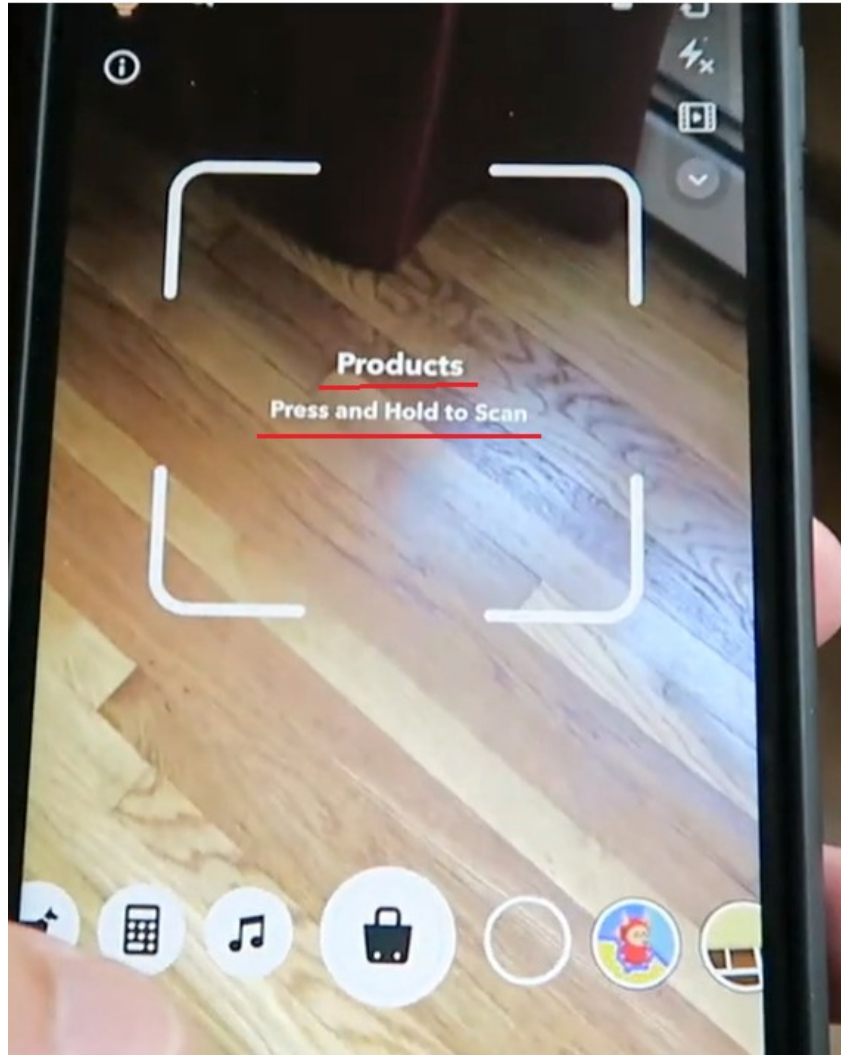
As shown below, the accused instrumentality is enabled on a user's smartphone. The smartphone is then used to point-to and scan objects for identification by the accused instrumentality. After enabling the accused instrumentality on a smartphone, a user log's in to the accused instrumentality, and clicks on Scan button in the accused application. The user then captures a picture of its surrounding using the smartphone camera. One of the multiple objects in the image is then identified by the accused application.



<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>



<https://www.youtube.com/watch?v=BPXfjoba-xQ>



<https://www.youtube.com/watch?v=BPXfjoba-xQ>

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ⓘ IMPORTANT

The **Scan** function is a part of Lens Cloud, a collection of backend services, built on the same infrastructure that powers Snapchat.

To learn more about Lens Cloud and how to power a new generation of AR experiences that are more dynamic, useful, and interactive than ever before, please visit [Lens Cloud Overview](#)

<https://docs.snap.com/lens-studio/references/templates/interactive/scan>

Guide

The template has several different independent examples on how you can use scan:

- **Scan Permission**: Since Scan will get information on the camera by sending data to the server, the Lens will require the user's permission
- **Basic Scan**: Basic way to list scanned results on screen on update or by pressing buttons
- **Identify Object**: Identify whether certain object is in scene
- **Environment Switch**: Activate visuals on environment changes
- **Get Car Price**: Shows scanned car and its price range on screen
- **Checklist**: Check if objects in scene fits into the element populated in a checklist. In addition, it contains an example script that you can use to get started with your own Scan experience.
- **The Print On Tap Example**: Simple example to show how to script with scan
- **Scan Rate Limit**: Dealing with multiple Scan requests

<https://docs.snap.com/lens-studio/references/templates/interactive/scan>



TIP

A scan result can return one or more objects, with one or more detail per object (depending on the scan type)

<https://docs.snap.com/lens-studio/references/templates/interactive/scan>

Identify Object

The `Identify Object` example uses the `IdentifyObject` script to check if any of the currently scanned objects matches the name typed in the `ObjectName` slot in the script. Instead of printing the result of the Scan, here we are checking if the result is what we want. If it is what we want, we trigger some effect.

By Default `ObjectName` is set as `Banana` and the **Behavior** script will enable a particle system when Banana is scanned.

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